

§ 655.607 Funding.

(a) *Federal-aid highways.* (1) Funds apportioned or allocated under 23 U.S.C. 104(b) are eligible to participate in projects to install traffic control devices in accordance with the MUTCD on newly constructed, reconstructed, resurfaced, restored, or rehabilitated highways, or on existing highways when this work is classified as construction in accordance with 23 U.S.C. 101(a). Federal-aid highway funds for eligible pavement markings and traffic control signalization may amount to 100 percent of the construction cost. Federal-aid highway funds apportioned or allocated under other sections of 23 U.S.C. are eligible for participation in improvements conforming to the MUTCD in accordance with the provisions of applicable program regulations and directives.

(2) Traffic control devices are eligible, in keeping with paragraph (a)(1) of this section, provided that the work is classified as construction in accordance with 23 U.S.C. 101(a) and the State or local agency has a policy acceptable to the FHWA Division Administrator for selecting traffic control devices material or equipment based on items such as cost, traffic volumes, safety, and expected service life. The State's policy should provide for cost-effective selection of materials which will provide for substantial service life taking into account expected and necessary routine maintenance. For these purposes, effectiveness would normally be measured in terms of durability, service life and/or performance of the material. Specific projects including material or equipment selection shall be developed in accordance with this policy. Proposed work may be approved on a project-by-project basis when the work is (i) clearly warranted, (ii) on a Federal-aid system, (iii) clearly identified by site, (iv) substantial in nature, and (v) of sufficient magnitude at any given location to warrant Federal-aid participation as a construction item.

(3) The method of accomplishing the work will be in accordance with 23 CFR part 635, subpart A, Contract Procedures.

(b) *Off-system highways.* Certain Federal-aid highway funds are eligible to participate in traffic control device im-

provement projects on off-system highways. In addition, Federal-aid highway funds apportioned or allocated in 23 U.S.C. are eligible for the installation of traffic control devices on any public road not on the Federal-aid system when the installation is directly related to a traffic improvement project on a Federal-aid system route.

APPENDIX TO SUBPART F OF PART 655—
 ALTERNATE METHOD OF DETERMINING
 THE COLOR OF
 RETROREFLECTIVE SIGN MATERIALS
 AND PAVEMENT MARKING MATERIALS

1. Although the FHWA Color Tolerance Charts depreciate the use of spectrophotometers or accurate tristimulus colorimeters for measuring the daytime color of retroreflective materials, recent testing has determined that 0/45 or 45/0 spectroradiometers and tristimulus colorimeters have proved that the measurements can be considered reliable and may be used.

2. The daytime color of non-fluorescent retroreflective materials may be measured in accordance with ASTM Test Method E1349, "Standard Test Method for Reflectance Factor and Color by Spectrophotometry Using Bidirectional Geometry" or ASTM Test Method E 1347 (Replaces E97), "Standard Test Method for Color and Color-Difference Measurement by Tristimulus (Filter) Colorimetry." The latter test method specified bidirectional geometry for the measurement of retroreflective materials. The geometric conditions to be used in both test methods are 0/45 or 45/0 circumferential illumination or viewing. Uniplanar geometry is not recommended for material types IV or higher (designated microprismatic). The CIE standard illuminant used in computing the colorimetric coordinates shall be D₆₅ and the 2 Degree Standard CIE observer shall be used.

3. For fluorescent retroreflective materials ASTM E991 may be used to determine the chromaticity provided that the D₆₅ illumination meets the requirements of E 991. This practice, however, allows only the total luminous factor to be measured. The fluorescent luminous factor must be determined using bispectral fluorescent colorimetry. Commercial instruments are available which allow such determination. Some testing laboratories are also equipped to perform these measurements.

4. For nighttime measurements CIE Standard Illuminant A shall be used in computing the colorimetric coordinates and the 2 Degree Standard CIE Observer shall be used.